CHRISTIAN MACION

Quant Researcher · Multi-Agent Research Architecture · Statistical Validation & Strategy Research

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FIT FOR: Two Sigma · Citadel Securities · Jane Street · Hudson River Trading · Balyasny · Jump Trading : QR / Research Engineer seat

SUMMARY

Quant Researcher who builds, statistically validates, and honestly retires systematic strategies under a pre-registration-aware, multiple-testing-controlled framework. I treat false positives as enforced methodology : banking each one into a reusable research-integrity playbook : and ship an automated monthly forward-out-of-sample monitoring pipeline so the live track record is un-gameable.

I previously served as an AI Systems Engineer / Quantitative Researcher on the systematic-strategy desk (NDA-protected; closed past contract 03/2026 - 06/2026) (PM with publicly attributable initials, NDA-protected desk), where I evaluated 40+ strategy families across 5 asset classes (equity-index, crypto, energy, metals, agriculture) under a 31-gate statistical filter; built 10+ point-in-time, look-ahead-disciplined data pipelines from scratch on free public sources; and implemented the modern selection-bias stack : Deflated Sharpe Ratio, Probability of Backtest Overfitting via CSCV, Minimum Backtest Length : scipy-free in numpy.

I design with reproducibility and adversarial verification as the first-class concern, not the final step. My strategies carry a cost-routed multi-agent AI research architecture (11 agents) alongside them : used to compress expert time and to keep an honest, versioned audit trail of how the research was actually run. Available 30 hrs/wk for a Tier-1 systematic-strategy desk that values bank-the-lesson honesty over headline Sharpe.

CORE SKILLS

- Systematic Strategy Research (momentum · mean-reversion · vol carry · stat-arb)
- Pre-Registration & Multiple-Testing Control
- Deflated Sharpe Ratio (Bailey & López de Prado)
- Probability of Backtest Overfitting : CSCV
- Minimum Backtest Length (MinBTL)
- Walk-Forward · Block-Bootstrap CIs · Monte-Carlo
- Random-Timing & Regime-Shuffle Nulls
- Sharpe / Sortino / Drawdown / Profit Factor
- Point-in-Time Data & Look-Ahead Discipline
- 5-Era Stability & Sub-Period Robustness
- Cointegration & Pairs Trading
- Variance Risk Premium & Options Carry
- Regime Conditioning (vol-targeting, vol-regime filter)
- Transaction-Cost Realism & Slippage Modeling
- Backtesting Engine (numpy, pandas, SQLite)
- Python (numpy / pandas / pyarrow / boto3 / matplotlib)
- SQL for Finance · AWS S3 Data Lakes
- Statistical & Mathematical Modeling
- Probability · Linear Algebra · Time-Series
- AI-Assisted Research & Literature Review
- Multi-Agent Architecture (research workflows)
- Reproducible-Build Discipline & Ledger Audits

EDUCATION

Financial Management Studies (current) — University of Mindanao (UM) (1st Semester, AY 2026-27 (enrolled))

Engineering Studies (units completed) — University of Southeastern Philippines (USeP) (2022 - 2024)

Philippine Science High School (PSHS) — PSHS System : Southern Mindanao Campus (Graduated 2022)

Certified Technical Analyst Program — Society of Technical Analysts of the Philippines (Tier-1) (Dec 2025)

TECHNICAL TOOLS

- Python (numpy / pandas / pyarrow / boto3 / matplotlib)
- SQL · SQLite · DuckDB
- AWS S3 (data lakes + frozen-spec evaluation ledger)
- Git & GitHub (versioned specs, audit trail)
- TradingView + Pine Script
- Jupyter / Google Colab
- Notion · Obsidian (research journals)
- ffmpeg / shell (data-pipeline orchestration)
- Multi-Agent AI Research Architecture (11 agents)

RELEVANT EXPERIENCE

AI Systems Engineer / Quantitative Researcher (contract) 03/2026 - 06/2026

systematic-strategy desk (NDA-protected; closed past contract 03/2026 - 06/2026) — Remote

- Evaluated 40+ systematic-strategy families across 5 asset classes (equity-index, crypto, energy, metals, agriculture) under a 31-gate statistical filter; advanced candidates through paper-shadow and live forward out-of-sample testing under pre-registration and frozen-spec evaluation.
- Implemented modern selection-bias statistics from scratch in numpy : Deflated Sharpe Ratio, PBO via CSCV, Minimum Backtest Length : plus block-bootstrap CIs, random-timing nulls, walk-forward, and Monte-Carlo suites; the methodological spine of every shipped number.
- Built 10+ point-in-time, look-ahead-disciplined data pipelines from scratch on free public sources ($0 budget) : byte-range subsetting, completeness guards, gap logging, and idempotent incremental pulls to produce reproducible research-grade datasets.
- Caught and documented false positives as enforced methodology : banking each into a reusable research-integrity playbook : and designed an automated monthly forward-OOS monitoring fleet (scheduled data pull → S3 sync → frozen-spec evaluation → ledger) that produces un-gameable live performance evidence.
- Designed a cost-routed multi-agent AI research architecture (11 agents + 22-module skills library) and authored an institutional operating standard plus 16 research studies / teaching workbooks adopted across the desk.

Independent Quant Researcher 01/2025 - 05/2026

Self-Directed Practice — Remote

- Designed, backtested, and statistically-validated systematic strategies on crypto and equity-index universes using Python; evaluated via Sharpe, drawdown, win-rate, and profit factor under pre-registration-aware discipline.
- Read and summarized 20+ academic and practitioner papers on momentum, mean-reversion, volatility carry, statistical arbitrage, and multi-agent AI architectures into structured one-page research notes.
- Maintained a research journal documenting hypotheses, methodology, statistical tests, and outcomes : building a personal library of structured quant knowledge that fed into a subsequent research-desk engagement.

Crypto Trading Systems Research Assistant 10/2025 - 04/2026

Ledger51 Trading Community — Davao Region, Philippines

- Supported structured analysis of crypto trading workflows: order-execution systems, trading bots, and platform mechanics : translating operational behavior into research-graded breakdowns.
- Documented execution friction and platform inconsistencies affecting trading accuracy and consistency; contributed to a structured documentation pass used for research and training purposes.

CERTIFICATIONS

Finance, Trading & Economics:

Certified Technical Analyst Program : STA Philippines (Tier-1), Certified Technical Analyst : CertifyMe, Financial Trading in Python : DataCamp, Math for Finance Professionals : DataCamp, Foundations of Growth Equity : Goldman Sachs, JPMorgan Chase Investment Banking Job Simulation : Forage

Mathematics, Statistics & Programming:

Getting Started with Python for Finance : LinkedIn, SQL for Finance Professionals : LinkedIn, Understanding Data Science : DataCamp

AI, Data Science & Technology:

Introduction to AI Agents : DataCamp, AI Fundamentals : DataCamp, Artificial Intelligence Fundamentals : IBM, Introduction to AI : Google, AI for the Modern Workforce : Ateneo de Davao University

Selected Events, Hackathons & Programs:

Galactic Problem Solver : NASA Space Apps Challenge (Zurich) : Oct 2025, BIDA META AICCELERATE 2025 : Meta & Bayan Academy : Dec 2025, UP Data Science Society : ACLE 2026 : Feb 2026, Speedrun Ethereum : ETHPH Mindanao : Aug 2025